

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for providing image data:  
receiving a rendering command;  
rendering an image based upon the rendering command, wherein the image is to be stored at a first memory location of a single [first] frame buffer;  
determining a second memory location representative of a raster location;  
enabling, by a write behind controller in a video graphics adapter, storage of the image at the first memory location when the second memory location indicates the raster has accessed data at the first memory location; and  
preventing, by the write behind controller, storage of the image at the first memory location when the second memory location indicates the raster has not accessed data at the first memory location.
2. (Original) The method of claim 1, wherein the step of receiving a rendering command, includes receiving a rendering command from a system processor.
3. (Original) The method of claim 1, wherein the first memory location and the second memory location are representative of a specific bytes of data.
4. (Original) The method of claim 1, wherein the first memory location and the second memory location are representative of a unique groups of data.
5. (Original) The method of claim 4, wherein the unique groups of data includes data to be displayed as at least a portion of a line of video/graphics.
6. (Original) The method of claim 1, wherein the second memory location indicates a data accessed by a display device controller.
7. (Original) The method of claim 1, wherein the second memory location indicates a data to be accessed by a display device controller.

8. (Currently amended) A method of providing image data:  
defining a graphics primitive having a first portion at X and a second portion at Y,  
wherein X and Y are indicative of address locations;  
providing the graphics primitive to a rendering engine when the rendering engine  
is storing data to a single frame buffer being accessed by a display device controller  
providing a current image, where the display device controller is yet to access an address  
location Z having data associated with the current image and the location Z is between X  
and Y; and  
preventing tearing of the current image.

9. (Original) The method of claim 8 wherein the address locations include  
display line numbers.

10. (Original) The method of claim 9 wherein the address locations include  
one of physical and logical address locations.

11. (Currently amended) A method of providing image data:  
accessing a first portion of video/graphics data from a first portion of a single  
frame buffer for display on a display device;  
storing a first portion of an image primitive to the first portion of the single frame  
buffer after the step of displaying the first portion of video/graphics data; and  
prohibiting, by a write behind controller in a video graphics adapter, a second  
portion of the image primitive from being stored to a second portion of the single frame  
buffer after the step of storing the first portion, wherein the second portion of the single  
frame buffer is adjacent to the first portion of the single frame buffer.

12. (Currently amended) The method of claim 11, further comprising the steps of:

accessing a second portion of video/graphics data from the second portion of the single frame buffer for display on the display device after the step of prohibiting; and  
storing the second portion of the image primitive to the second portion of the single frame buffer after the step of accessing the second portion of video/graphics data.

13. (Currently amended) A system for storing video/graphics data, the system comprising:

a rendering engine to render images; and  
a write behind raster controller in a video graphics adapter coupled to the rendering engine to prohibit write access to memory locations in a single frame buffer that have not been displayed.

14. (Original) The system of claim 13 further comprising:

a display device controller coupled to the write behind raster to indicate a raster location.

15. (Original) The system of claim 13, wherein the rendering engine further includes:

a rendering engine location register, wherein the rendering engine location register is to store a first memory location to be accessed by the rendering engine; and  
an over-run detect portion coupled to the rendering engine location register, and coupled to receive a raster location indicator, and to provide an over-run detect indicator, wherein the raster location indicator indicates a second memory location relative to a

location currently accessed by the rendering engine, and the over-run detect indicator to prohibit the rendering engine from write accessing to memory locations.

16. (Original) The system of claim 13, wherein the write behind raster includes:

- a multiplexor having a first input, a second input, and an output;
- a latch having an input coupled to the output of the multiplexor, and an output;
- a comparator having a first input coupled to the output of the latch, a second input, and an output; and
- an incrementor having a first input coupled to the output of the latch, and an output coupled to the first input of the multiplexor.

17. (Currently amended) A system for storing video/graphics data, the system comprising:

- a rendering engine for rendering a primitive image and writing data representing the primitive image into a single frame buffer;
- a display device controller for reading data from the single frame buffer for display; and
- a write prohibit means coupled to the display device controller to receive an indication of data read by the display device controller, and coupled to the rendering device to prevent a first portion of the primitive image from being written to the frame engine, while allowing a second portion of the primitive image to be written to the single frame buffer.

18. (Original) The system of claim 17, wherein the first portion is prevented from being written by stalling the rendering device.

19. (Currently amended) The system of claim 17, wherein the write prohibit means further allows the first portion of the primitive image to be written to the single frame buffer based on an updated status of the indication of data read by the display device.

20. (Original) The system of claim 17, wherein the indication of data read indicates the access status of a line of video/graphics data.

21. (Currently Amended) A method of providing image data:  
accessing a first portion of video/graphics data from a first portion of a single frame buffer for display on a display device;  
storing a first portion of an image primitive to the first portion of the single frame buffer in response to accessing the first portion of video/graphics data for display; and  
prohibiting, by a write behind controller in a video graphics adapter, a second portion of the image primitive from being stored to a second portion of the single frame buffer in response to storing the first portion of the image primitive and until the first portion of the image primitive is displayed, wherein the second portion of the single frame buffer is adjacent to the first portion of the single frame buffer.

22. (Currently amended) The method of claim 22, further comprising the steps of:

accessing a second portion of video/graphics data from the second portion of the single frame buffer for display on the display device after the step of prohibiting; and

storing the second portion of the image primitive to the second portion of the single frame buffer after the step of accessing the second portion of video/graphics data.

23. (Currently amended) A system for storing video/graphics data, the system comprising:

a rendering engine to render images to a plurality of memory locations in a single frame buffer; and

a write behind raster controller in a video graphics adapter coupled to the rendering engine to prohibit write access to the plurality of memory locations in a single frame buffer when at least one of the memory locations has not been displayed.

24. (Previously added) The system of claim 23 further comprising:

a display device controller coupled to the write behind raster to indicate a raster location.